

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-19 (Canceled).

Claim 20 (Currently Amended): A method for starting and normally operating a fuel reforming apparatus wherein an assembled unit of a reformer, the assembled unit including associated instruments of the reformer, is covered with and enclosed by a vessel to form a heat insulating layer therearound, an interior of said vessel being utilized as a flow path of combustion gas for the reformer, comprising:

burning startup fuel without supply of primary fuel to the reformer so that resultant combustion gas from said burnt startup fuel is heat exchanged with no primary fuel in the reformer and is guided to said flow path while being still hot, whereby the combustion gas flows around and heats ~~[[the]]~~ a low-temperature shift converter and ~~[[the]]~~ a CO remover, ~~wherein; and~~

supplying the primary fuel to the reformer during normal operation after the completion of start-up so that the combustion gas from the burned fuel is heat exchanged with the primary fuel in the reformer, a water vaporizer and a primary fuel gasifier and is controlled into temperature level of reaction in the shift converter and the CO remover,
wherein

said reformer comprises

a furnace flue arranged centrally inside the vessel configured to flow the combustion gas from a combustor therethrough; and

a plurality of reforming tubes arranged side by side in the flow path of the combustion gas between the furnace flue and the vessel and charged with reforming catalysts configured to flow a source gas therethrough for reforming of the source gas, and

said associated instruments of the reformer include

[[a]] said water vaporizer configured to vaporize water into water vapor through heat of the exhaust gas from the reformer;

[[a]] said low-temperature shift converter configured to lower the gas reformed by the reformer to a required temperature so as to transform CO and H₂O into CO₂ and H₂, and

[[a]] said CO remover configured to cool the reformed gas having passed through the shift converter so as to remove CO.

Claim 21 (Previously Presented): The method according to Claim 20, wherein each of the reforming tubes is a double-walled tube structure that includes an inner tube and an outer tube.

Claim 22 (Previously Presented): The method according to Claim 20, wherein the reformer is disposed above the water vaporizer, the water vaporizer is disposed above the shift converter, and the shift converter is disposed above the CO remover.

Claim 23 (Currently Amended): A method for starting and normally operating a fuel reforming apparatus, the fuel reforming apparatus including an assembled unit of a reformer that is covered with and enclosed by a vessel that forms a heat insulating layer therearound, the assembled unit including a shift converter, a CO remover, and a water vaporizer configured to vaporize water into water vapor through heat with an exhaust gas from the reformer, wherein an interior of said vessel defines a flow path of combustion gas for the reformer, said method comprising:

burning startup fuel in a furnace flue that is arranged centrally inside the vessel without supplying primary fuel to the reformer;

guiding a combustion gas that results from said burning from said furnace flue to said flow path defined by the interior of said vessel; [[and]]

guiding the combustion gas through the flow path such that the combustion gas flows around an exterior of each of a plurality of reforming tubes that are arranged side by side in the flow path, then flows to the shift converter, and then flows to the CO remover[[,]]; and

supplying the primary fuel to the reformer during normal operation after the completion of the start-up so that the combustion gas from the burned fuel is heat exchanged with the primary fuel in the reformer, the water vaporizer and a primary fuel gasifier and is controlled into temperature level of reaction in the shift converter and the CO remover,

wherein the plurality of reforming tubes are charged with reforming catalysts and are configured to flow a source gas therethrough so as to reform the source gas, the shift converter is configured to lower a temperature of the source gas reformed by the reformer to a required temperature so as to transform CO and H₂O into CO₂ and H₂, and the CO remover is configured to cool the reformed gas having passed through the shift converter so as to remove CO, and

wherein the guiding the combustion gas through the flow path includes flowing the combustion gas around and heating the plurality of reforming tubes, the shift converter, and the CO remover while the combustion gas is still hot.

Claim 24 (Previously Presented): The method according to Claim 23, wherein each of the plurality of reforming tubes is a double-walled tube structure that includes an inner tube and an outer tube and the guiding the combustion gas through the flow path includes flowing the combustion gas directly past an exterior surface of each outer tube of the plurality of reforming tubes.

Claim 25 (Previously Presented): The method according to Claim 23, wherein the reformer is disposed above the water vaporizer, the water vaporizer is disposed above the shift converter, and the shift converter is disposed above the CO remover.

Claim 26 (Previously Presented): The method according to Claim 23, wherein the combustion gas is guided from the plurality of reforming tubes to the shift converter in a downward direction.

Claim 27 (Previously Presented): The method according Claim 26, wherein the combustion gas is guided from the shift converter to the CO remover is a downward direction.